

# **Specification**

Part No. : **GSA.8830.A.201111** 

Product Name : Thin Heat-Shrink Wrapped Cellular I-Bar

Adhesive Type External Antenna

Feature : 850/900/1800/1900/2100 MHz bands

2m RG174 cable with SMA(M) connector

90mm\*20.8mm\*4.6mm

Low profile

With heat shrink to protect antenna

**RoHS & REACH Compliant** 





Adhesive Mount



#### 1. Introduction

The GSA.8830 Penta-band I-Bar antenna is flexible and robust. Its slim-line design encased in waterproof heat-shrink material allows for covert and convenient installation in automotive vehicles. Omni-directional gain across all bands ensures constant reception and transmission.

With its unique dipole design, the GSA.8830 has exceptional industry performance characteristics considering its very low profile at 4.6mm and has a compact size 90mm\*20.8mm. It's suitable for customers that appreciate highest performance at a lower price.

This antenna is designed and tuned to be mounted on glass or plastic (not on metal). Cable lengths and connectors are fully customizable. Contact your regional Taoglas customer support team for more information.



# 2. Specification Table

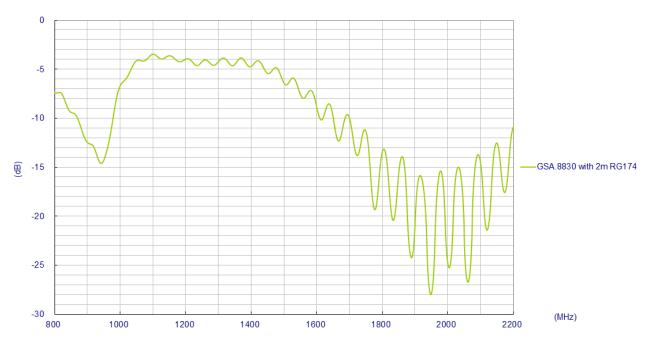
ELECTRICAL					
	GSM 850	GSM 900	DCS	PCS	WCDMA I
Frequency (MHz)	824~896	880~960	1710~1880	1850~1990	1920~2170
Peak Gain (dBi)*	-0.23	0.77	0.67	0.98	0.73
Average Gain (dBi)*	-4.66	-5.39	-3.93	-3.43	-3.42
Efficiency (%)*	34.55	28.94	40.57	45.53	45.52
Return Loss (dB)*	< -8	< -9	< -10	< -10	< -10
Polarization	Linear				
Impedance	50 Ω				
MECHANICAL					
Antenna Dimensions		90mm x 20.8mm x 4.6mm			
Material	FR4				
Cable type	RG174 Coaxial Cable				
Cable length		2m			
Connector type	SMA(M)				
Adhesive		3M 467			
IP rating		IP67(Internal PCB)			
ENVIRONMENTAL					
Operation Temperatu	re	-40°C ~ +85°C			
Storage Temperature	-40°C ~ +85°C				

<sup>\*</sup> Antenna is tested at the connector, to include 2 meter cable loss, adhered on a 2mm thickness ABS material base substrate.

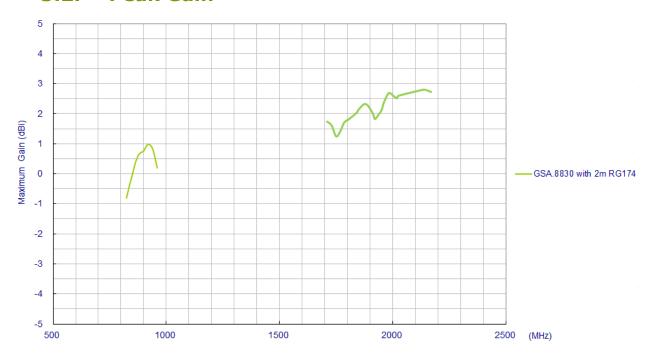


## 3. Antenna Characteristics

#### 3.1. Return Loss

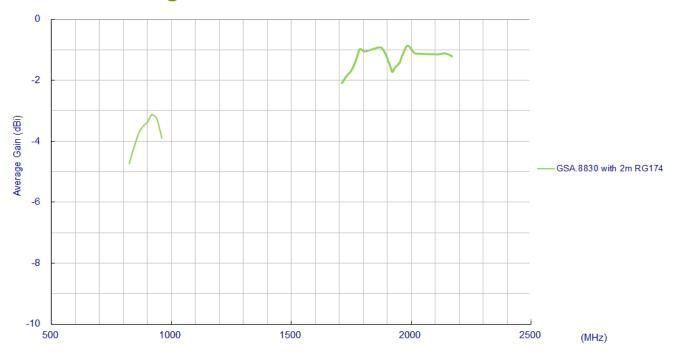


#### 3.2. Peak Gain

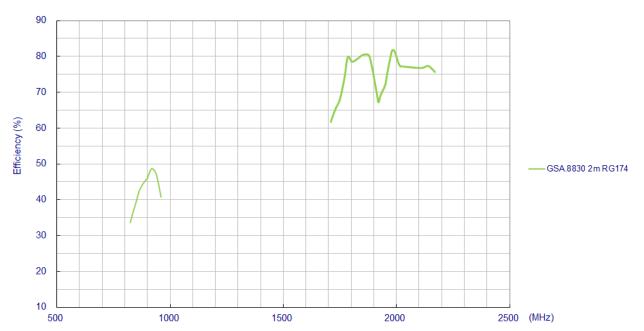




### 3.3. Average Gain



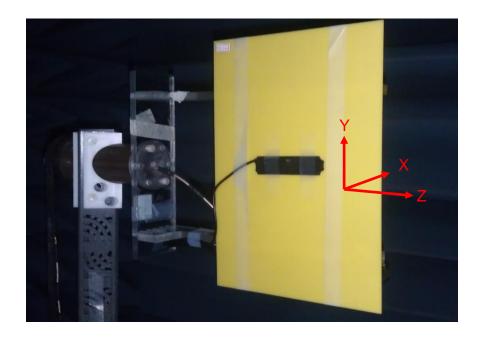
#### **Efficiency** 3.4.





# **4. Antenna Radiation Patterns**

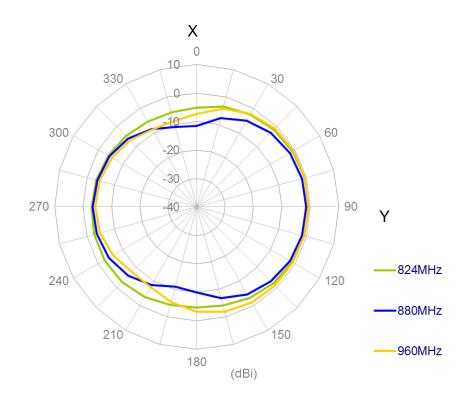
## **Antenna setup in 3D Anechoic chamber**

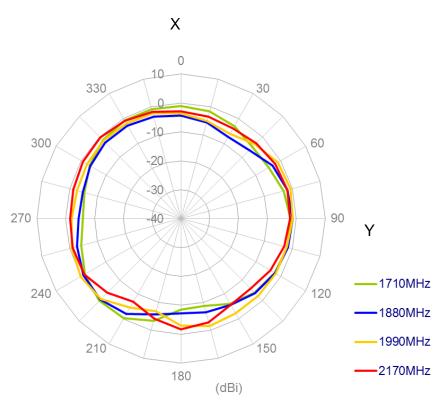




#### **Radiation Patterns**

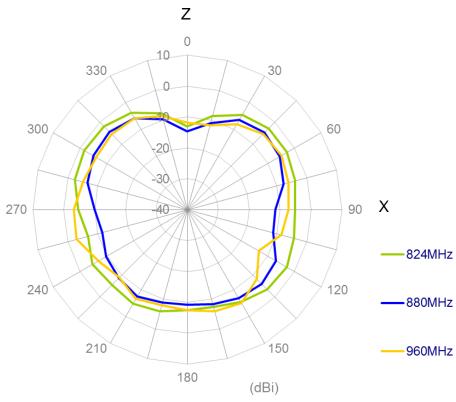
XY plane

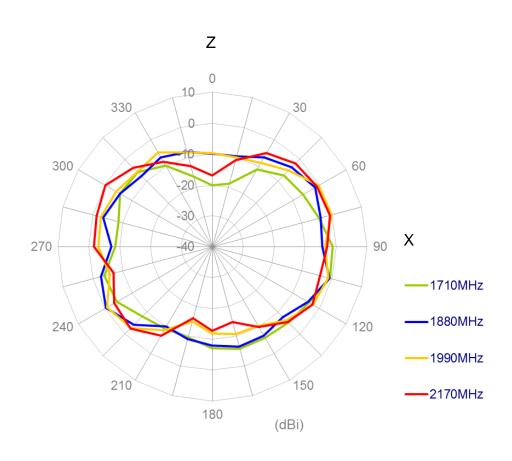






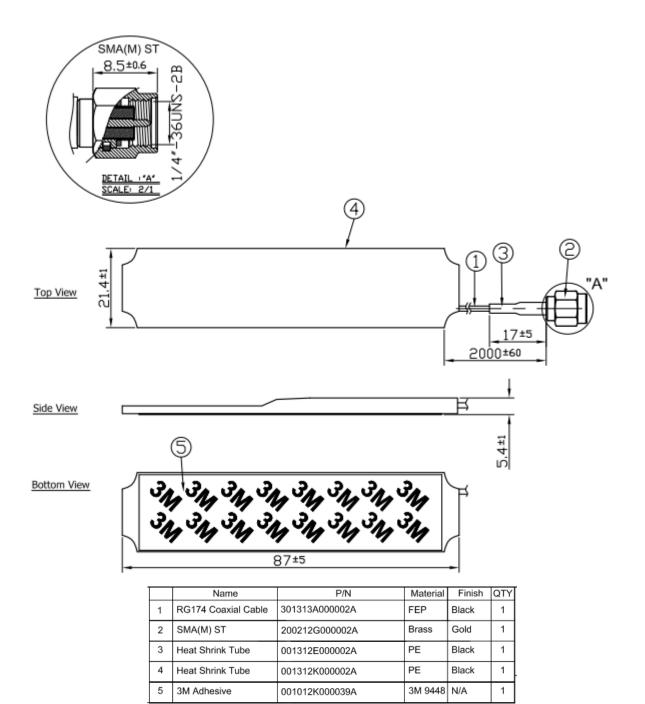








# 5. Drawing





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